

CLAIMS

What is claimed is:

1 1. A method of data storage employing a tape cartridge having a cartridge memory,
2 the method comprising:
3 storing a cartridge stamp in the cartridge memory; and,
4 determining if the cartridge stamp has been updated.

1 2. The method of claim 1, and wherein determining if the cartridge stamp has been
2 updated comprises:
3 performing a first reading of the cartridge stamp;
4 performing a second reading of the cartridge stamp; and,
5 looking for a difference in the cartridge stamp between the first reading and the
6 second reading.

1 3. The method of claim 1, and further comprising:
2 providing a set of label data stored in the cartridge memory;
3 updating the set of label data stored in the cartridge memory; and,
4 updating the cartridge stamp in response to updating the set of label data.

1 4. The method of claim 1, and further comprising:
2 determining that the cartridge stamp has been updated; and,
3 reading the set of label data in response to determining that the cartridge stamp
4 has
5 been updated.

1 5. The method of claim 1, and wherein the cartridge stamp comprises a real-time
2 stamp.

1 6. The method of claim 1, and wherein the cartridge stamp comprises a randomly
2 selected character.

1 7. The method of claim 1, and wherein the cartridge stamp comprises a sequentially
2 selected character.

1 8. A method of data storage employing a tape cartridge which has a length of tape
2 with a set of general data stored thereon, and which has a cartridge memory, the
3 method comprising:

1 storing a cartridge stamp in the cartridge memory;
2 updating the set of general data; and,
3 updating the cartridge stamp as a result of updating the set of general data.

1 9. The method of claim 8, and further comprising:
2 storing a set of label data in the cartridge memory; and,
3 updating the set of label data as a result of updating the set of general data.

1 10. A method of data storage employing a tape cartridge which has a cartridge
2 memory with a set of label data stored therein, and which has a length of tape with a set
3 of general data stored thereon, the method comprising:
4 storing a cartridge stamp in the cartridge memory;
5 replacing the set of label data stored in the cartridge memory with an updated set
6 of label data; and,
7 replacing the cartridge stamp stored in the cartridge memory with an updated
8 cartridge stamp in response to replacing the set of label data.

1 11. The method of claim 10, and further comprising:
2 providing a reader memory; and,
3 storing the cartridge stamp in the reader memory.

1 12. The method of claim 11, and further comprising:
2 reading the updated cartridge stamp from the cartridge memory;
3 comparing the updated cartridge stamp to the cartridge stamp stored in the
4 reader memory; and,
5 determining that the updated cartridge stamp stored in the cartridge memory
6 does not match the cartridge stamp stored in the reader memory.

1 13. The method of claim 12, and further comprising reading the set of label data from
2 the cartridge memory in response to determining that the updated cartridge stamp
3 stored in the cartridge memory does not match the cartridge stamp stored in the reader
4 memory.

1 14. The method of claim 13, and further comprising replacing the cartridge stamp in
2 the reader memory with the updated cartridge stamp from the cartridge memory in
3 response to determining that the updated cartridge stamp stored in the cartridge
4 memory does not match the cartridge stamp stored in the reader memory.

1 15. The method of claim 14, and further comprising:
 2 storing the set of label data in the reader memory; and,
 3 replacing the set of label data in the reader memory with the updated set of label
 4 data in the reader memory in response to determining that the updated cartridge stamp
 5 stored in the cartridge memory does not match the cartridge stamp stored in the reader
 6 memory.

1 16. The method of claim 15, and further comprising replacing the set of general data
 2 with an updated set of general data, wherein replacing the set of label data stored in the
 3 cartridge memory with an updated set of label data is in response to replacing the set
 4 of general data with an updated set of general data.

1 17. A data storage apparatus, comprising a tape cartridge having a cartridge memory
 2 which is configured to store therein a cartridge stamp.

1 18. The apparatus of claim 17, and further comprising a first controller, wherein:
 2 the cartridge memory is further configured to store therein a set of label data;
 3 and,
 4 the first controller is configured to execute a sequence of computer-executable
 5 steps to:
 6 update the set of label data; and,
 7 update the cartridge stamp in response to updating the set of label data.

1 19. The apparatus of claim 18, and further comprising a second controller configured
 2 to execute a sequence of computer-executable steps to:
 3 read the cartridge stamp from the cartridge memory during a first reading thereof
 4 before the cartridge stamp is updated;
 5 read the updated cartridge stamp from the cartridge memory during a second
 6 reading thereof after the cartridge stamp is updated;
 7 compare the cartridge stamp to the updated cartridge stamp; and,
 8 determine that the cartridge stamp does not match the updated cartridge stamp.

1 20. The apparatus of claim 19, and wherein the second controller is configured to
 2 execute an additional computer-executable step to read the updated set of label data
 3 from the cartridge memory in response to determining that the cartridge stamp does not
 4 match the updated cartridge stamp.

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- 1 21. The apparatus of claim 20, and further comprising a reader memory, and wherein
2 the second controller is configured to execute additional computer-executable steps to:
3 store the set of label data in the reader memory; and,
4 update the set of label data stored in the reader memory in response to
5 determining that the cartridge stamp does not match the updated cartridge stamp

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